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10/520,539	01/05/2005	Sean Mark Dalziel	CL2150 USPCT	9281

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EI du Pont de Nemours and Company
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EXAMINER

DEES, NIKKI H

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1794

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

DETAILED ACTION

1. The amendment filed January 3, 2008, has been entered. Claims 1-7 and 9-10 remain pending in the application. The previous double patenting rejections stand as the terminal disclaimers filed are considered improper.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-2 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Schurr (WO 97/07879).

4. Schurr (p. 3 lines 18-31) teaches the following:

Further in accordance with the present invention, there is provided a process for coating a solid particle with a coating material. The process comprises the steps of metering a liquid composition comprising the coating material into a flow restrictor having an outlet end; injecting a gas stream through the flow restrictor concurrently with the metering step to create a zone of turbulence at the outlet end of the flow restrictor, thereby atomizing the liquid composition; heating the gas stream prior to injecting the gas stream through the flow restrictor; and adding a solid particle to the zone of turbulence concurrently with the metering and injecting steps to mix the solid particle with the atomized liquid composition, wherein the mixing at the zone of turbulence coats the solid particle with the coating material.

This reads on Applicants' claim 1.

5. Schurr states that the process is for coating solid particles, in particular, small particles such as powdery or granular materials (p. 2 lines 13-15). Schurr would have been able to clearly envisage the coating of powdered food products as listed in Applicants' claim 2.

6. Schurr also speaks to repeated passes through the process to adhere additional coating materials until the desired thickness is achieved (p. 9 lines 10-15).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1-5 and 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schurr (WO 97/07879) in view of Johnson et al. (3,949,094).

9. Schurr teaches the process for encapsulating a particle with a liquid encapsulating material and then repeating this process, as discussed above in ¶ 4 and 6.

10. Schurr teaches wood rosin as a liquid encapsulating material to be used in his process (p. 13, Example 2). It is known in the art that calcium carbonate is an animal feed and wood rosin serves as a surface-modifying agent.

11. Schurr is silent as to the use of food particles in combination with nonfood GRAS material in his process.

12. Johnson et al. teach a process for encapsulating food particles with a lipoidal material (col. 2 lines 8-10). Johnson et al. give many examples of food particles that may be used singly or occur in mixed form in their process (all in col. 1), including titanium dioxide (line 20), baking powder (line 34), gelatin (line 32), among many others.

13. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have further encapsulated the particles taught by Johnson et al. in the process taught by Schurr to result in food particles that are of a particular size, flavor profile, and possess the desired stability properties.

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14. Claims 1, 6, 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schurr (WO 97/07879) in view of Brenner et al. (3,971,852).

15. Schurr teaches the process for encapsulating a particle with a liquid encapsulating material and then repeating this process, as discussed above in ¶ 4 and 6.

16. Schurr is silent as to the use of a spray dried emulsion of a flavor oil as the food particle being coated.

17. Brenner et al. teach an emulsion of lemon oil that is spray dried to form a powder (col. 12, example 3). Brenner et al. go on to state that the particulates formed by their invention can be used in all products using particulate compositions including foods and beverages (col. 16, lines 6-68).

18. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used the spray-dried emulsion of a flavor oil taught by Brenner et al. in the particulate encapsulating process taught by Schurr in order to result in an encapsulated flavor oil particle.

19. Claims 1, 7, 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schurr (WO 97/07879) in view of Swisher (2,809,895).

20. Schurr teaches the process for encapsulating a particle with a liquid encapsulating material and then repeating this process, as discussed above in ¶ 4 and 6.

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21. Schurr is silent as to the use of an extruded emulsion of a flavor oil as the food particle being coated.

22. Swisher teaches an emulsion of an orange oil (col. 2, lines 63-68). Swisher goes on to state that extrusion of the emulsion forms solid particles (col. 3, lines 34-36). It is also noted that the particulates are well suited for use as a flavoring in dehydrated beverage products and other food products (col. 5, lines 44-52).

23. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used the extruded emulsion of a flavor oil taught by Swisher in the particulate encapsulating process taught by Schurr in order to result in an encapsulated flavor oil particle.

Response to Arguments

24. Applicant's arguments filed January 3, 2008, have been fully considered but they are not persuasive.

25. Regarding the 102 rejection of claims 1-2 and 9, applicant has amended the claims to read a solid food particle, and has added the limitations of claim 8 to claim 1. Applicant argues that that Schurr does not teach a solid food particle.

26. In response to applicant's argument that Schurr teaches neither a solid food particle, nor a liquid encapsulating material as claimed, it is noted that Schurr teaches calcium carbonate coated with wood rosin. Calcium carbonate is considered an inert

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food additive, and could also be part of a health or fitness supplement. The wood rosin coating as taught by Schurr is also known to be used in food products as a surface modifying agent, moisture barrier or shelf-life extending agent depending on the particular application.

27. Regarding the 103 rejection over Schurr in view of Johnson et al., applicant argues that Johnson et al. teach the treatment liquid condiments for encapsulation.

28. In response to applicant's argument, in col. 5 of Johnson et al. it is taught that the condiment core may also be sugar or a mixture of sugar and other sweeteners (lines 17-18) or baking powder or other suitable leavening agents (lines 31-35).

Consequently, one of ordinary skill at the time of the invention would have looked to Johnson et al. and Schurr when desiring to encapsulate solid food particles.

29. Regarding the 103 rejections over Schurr in view of Brenner et al. the applicant argues that Brenner et al. do not teach solid food particles. The applicant further argues that Schurr in view of Brenner et al. does not teach coating materials as now claimed in the amended claim 1.

30. Claim 6 is to a spray-dried emulsion of a flavor oil. Brenner et al. teach that their invention provides a solid particle after spray-drying (col. 3 lines 13-22). In col. 12, Example 3, Brenner et al. clearly teach a spray-dried emulsion of lemon oil (a flavor oil). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have employed the solid food particle as produced by the teachings of

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Brenner et al. in further coating processes as taught by Schurr et al. in order to result in an encapsulated flavor article.

31. In response to the rejection regarding the specific coating materials used in Schurr in view of Brenner et al., it is stated *supra* in the 103 rejection over Schurr in view of Johnson et al. that Schurr teaches wood rosin as a coating material. Wood rosin is known in the art to be a surface modifying agent and could also be considered a moisture barrier or a shelf-like extending agent, among others. Therefore, the amendment of claim 1 to include the limitations of claim 8 are still considered obvious over the teachings of Schurr in view of Brenner et al. See Francis on the use of wood rosins in food coatings (Francis, Frederick J. 1999. *Wiley Encyclopedia of Food Science and Technology*. 2nd Edition. Volumes 1-4. p. 582. John Wiley & Sons).

32. Regarding the 103 rejections over Schurr in view of Swisher, the applicant argues that the coating materials now claimed in the amended claim 1 are not taught by this combinations of references.

33. In response to this rejection, it is stated *supra* in the 103 rejection over Schurr in view of Johnson et al. that Schurr teaches wood rosin as a coating material. Wood rosin is known in the art to be a surface modifying agent and could also be considered a moisture barrier or a shelf-like extending agent, among others. Therefore, the amendment of claim 1 to include the limitations of claim 8 are still considered obvious over the teachings of Schurr in view of Swisher. As above, see Francis on the use of wood rosins in food coatings.

Double Patenting

34. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

35. Claims 1 and 9 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-10 of U.S. Patent No. 7,163,708. Although the conflicting claims are not identical, they are not patentably distinct from each other because both the patent and the application teach the encapsulation of food particles by the same process using the same liquid coating/encapsulation materials and both allow for repeating the encapsulation process with the same or different coating materials.

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36. Claims 1-5 and 9-10 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-3, 5, 7, and 10-12 of copending Application No. 10/523,225. Although the conflicting claims are not identical, they are not patentably distinct from each other because both applications teach the encapsulation of edible particles by the same process using the same encapsulation materials and both allow for repeating the encapsulation process with the same or different coating materials.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

37. Claims 1, 3-5, and 9-10 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-20 of copending Application No. 10/521,002. Although the conflicting claims are not identical, they are not patentably distinct from each other because both applications teach the encapsulation of edible particles by the same process using the same encapsulation materials and both allow for repeating the encapsulation process with the same or different coating materials. Additionally, 10/521,002 teaches the loading of the carrier particles that are claimed for use in the process of both 10/520,539 (claim 1) and 10/521,002 (claim 9).

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

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38. Claims 1-2 and 9-10 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 13-16 of copending Application No. 10/524,673. Although the conflicting claims are not identical, they are not patentably distinct from each other because both applications teach the same process for coating or encapsulation of food particles using the same materials. Additionally, both applications teach that the coating/encapsulating process may be repeated with the same or different coating materials.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Terminal Disclaimer

39. The terminal disclaimers filed on January 3, 2008 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of application numbers 10/524,673, 10/521,002, and 10/523,225 and patent number 7,163,708 have been reviewed and are NOT accepted.

a. The person who signed the terminal disclaimer is not recognized as an officer of the assignee, and he/she has not been established as being authorized to act on behalf of the assignee. See MPEP § 324.

40. An attorney or agent, not of record, is not authorized to sign a terminal disclaimer in the capacity as an attorney or agent acting in a representative capacity as provided by 37 CFR 1.34 (a). See 37 CFR 1.321(b) and/or (c).

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41. It would be acceptable for a person, other than a recognized officer, to sign a terminal disclaimer, provided the record for the application includes a statement that the person is empowered to sign terminal disclaimers and/or act on behalf of the organization.

Accordingly, a new terminal disclaimer which includes the above empowerment statement will be considered to be signed by an appropriate official of the assignee. A separately filed paper referencing the previously filed terminal disclaimer and containing a proper empowerment statement would also be acceptable.

Additionally, the filing date listed on the terminal disclaimer of Application number 10/523,225 is incorrect. It should be listed as January 31, 2005.

Conclusion

42. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nikki H. Dees whose telephone number is (571) 270-3435. The examiner can normally be reached on Monday-Friday 7:30-5:00 EST (first Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carol Chaney can be reached on (571) 272-1284. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Nikki H. Dees
Examiner
Art Unit 1794

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